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ABSTRACT

This paper provides information about the efficacy of a model for preparing teacher candidates for the Arizona teacher licensure examination (i.e., Arizona Educator Proficiency Assessments [AEPA]). The model includes test familiarization, drill and practice with feedback, training in strategies for specific item types, and general test preparation. Surveys and phone interviews were conducted to identify students' existing level of teacher preparation and skills, course grades, and prior teaching experience. The study sample included 79 teacher education candidates who reported using AEPA Prep Center test preparation results. The systemic multi-step investigation found that students who engaged in the test preparation activities reported greater levels of preparedness for the AEPA. Students reported that drill and practice with feedback represented the most important test preparation activity. No differences in levels-test preparedness or test-passing rates were found between traditional four-year students, nontraditional four-year students, and community college transfer students. An appendix describes AEPA Preparation Center Specialized Services. (Contains 1 table and 29 references.) (Author/SLD)

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Improving Performance? A Model for Examining the Impact of the AEPA Preparation Center in Arizona

Proposal originally titled:
Improving Performance: A Model for Examining the Impact of the Teacher Education Skills Enhancement Center (TESEC) in Arizona

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Abstract

This paper provides information about the efficacy of a model for preparing teacher candidates for the Arizona teacher licensure examination (i.e., Arizona Educator Proficiency Assessments (AEPA)). The model includes test familiarization, drill and practice with feedback, training in strategies for specific item types, and general test preparation. Surveys and phone interviews were conducted to identify students' existing level of teacher preparation and skills, course grades, and prior teaching experience. The systematic multi-step investigation found students that engaged in the test preparation activities reported greater levels of preparedness for the AEPA. Students reported that drill and practice with feedback was the most important test preparation activity. No differences in levels test preparedness or test passing rates were found between traditional four-year students, non-traditional four-year students, or community college transfer students.

Introduction:

Estimates from the U.S. Department of Education, National Center of Educational Statistics (NCES) show that more than 3.5 million K-12 teachers will be needed to teach our nation's students in the coming decade (AASCU, 2001; Berliner 2001; U.S. Department of Education, NCES, 2001). There are increasing concerns about meeting the increasing need for classroom teachers, insuring teacher quality, and keeping teachers in the classroom (Berliner, 2001; Darling-Hammond, 2000; Ingersoll, 2001; Mid-continent Research for Education and Learning (McREL), 2001; National Research Council, 2001). These needs have coincided with new federal and state teacher preparation requirements that make it more difficult for teacher candidates to enter and remain in the classroom (Balou & Podgursky, 2001; Cobb, Shaw, Millard, & Bomotti, 1999; Fowler, 2001; Ludlow, 2001; Wayne, 1999).

The 1996 National Commission on Teaching and America's Future (NCTAF) report, *What Matters Most: Teaching for America's Future* led with the goal of "providing every student the in United States with access to a competent, caring, and qualified teacher." The report laid out recommendations that included getting serious about standards, reinventing teacher preparation and professional development, fixing teacher recruitment, encouraging and rewarding teacher knowledge and skill, and creating schools that are organized for teacher and student success (NCTAF, 1996). The influential report has also led policy makers and educators alike to examine teacher education preparation programs and has resulted in numerous recommendations for addressing problems in insuring teacher quality, and has also influenced federal education law.

Prominent among the recent federal educational laws are the teacher preparation requirements or Title II provisions to the Higher Education Act of 1998 (HEA). The Title II provisions were established to improve teacher quality and develop new accountability requirements for states and institutions that prepare teachers (U.S. Dept. of Education, 2000) and to address increasing public concerns about teacher quality in the U.S. (Latham, Gitomer, & Ziomek, 1999). Two important Title II provisions (i.e., Sections 207 and 208) are designed to use pass rates on states' teacher licensure examinations as a measure of the quality of teacher preparation programs. Teacher preparation programs with low teacher test pass rates risk being identified as low-performing which if not improved can lead to loss of federal funding. Inevitable state-level comparisons can be damaging to students from the "low performing" teacher education programs and may not lead to increased teacher quality (Bradley, 1999; Fowler, 2001; Ludlow, 2001). As shown in Figure 1, forty-four states now require some combination of teacher licensure examinations to determine which teachers enter the public school classroom (National Research Council [NRC], 2001) and the results from these examinations can and do impact the public perceptions of the teacher preparation programs. If high standards are to be adopted by teacher education programs, passing scores on teacher licensure examinations will be required to follow suit even though they will certainly impact the number of minorities that become classroom teachers (NRC, 2001). This potential development is especially troublesome given that the number of minority students is increasing in the general population (NCES, 2001).

Figure 1: Forty-Four US States Require Teacher Licensure Examinations for Certification

Although there is wide agreement among educators and testing experts that states *should* use multiple forms of assessments in making decisions about teacher candidates (NRC, 2001) the reality is that most states rely on test results from existing teacher licensure examinations to determine who receives teacher certification. The authors of *What Matters Most* state "that to get serious about standards, for both students and teachers we must license teachers based on demonstrated performance, including tests of subject matter knowledge, teaching knowledge, and teaching skill (NCTAF, 1996 p. 1)."

Despite the fact that high-stakes standardized testing is now commonplace in K-12 settings, high-stakes testing is relatively new to the teacher education realm. So it is

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not surprising that teacher preparation programs are working to meet the Title II requirements and attempting to avoid being labeled "low-performing." But, unlike K-12 settings where schools must accept all students, teacher education programs have more latitude in how they meet policy requirements (AASCU, 2001). For example, many teacher preparation programs have changed their teacher education programs' requirements to include a passing teacher test score in order to graduate or as a prerequisite for student teaching (AASCU, 2001; Latham, Gitomer, & Ziomek, 1999). These *gate-keeping* strategies guarantee that these teacher education programs will report 100% passing rates to the federal government, but these changes in the requirements come at a potential cost to underrepresented groups (National Commission on Testing and Public Policy (NCTPP), 1990). The updated requirements have the potential of keeping prospective teachers (often students of color) from entering the classroom (NCTPP, 1990; NRC, 2001).

In order to avoid implementing stricter admission or completion requirements, some teacher education programs have been working to implement strategies for improving their students' teacher test performance without losing sight of their mission to prepare students to be the teachers of tomorrow's classrooms – and to avoid preventing potentially excellent teachers from joining the teacher profession. Stricter admission requirements are at odds with the promotion of including a diverse array of students that should be eligible for work in the classroom given the critical need for teachers in all disciplines today (Darling-Hammond, 2000). In addition, there is wide agreement among testing experts that no single test should ever be used as the sole measure of student knowledge. Yet, teacher preparation programs choosing to maintain less restrictive

admission standards or those that are required to provide a more open admission policy are at greater risk than stricter admission schools of becoming ridiculed in the public eye and penalized by the federal Title II reporting requirements. So, what can teacher education programs do?

Teacher Preparation

Until there are substantive changes in the Title II teacher licensure reporting requirements teacher preparation programs will have to continue to work toward establishing high standards, including a diverse student pool, developing high quality teacher candidates, and devoting resources to prepare students for their state's teacher licensure examination. The 2001 National Research Council report stated that, "the law [Title II] now requires states to issue report cards on their tests and licensure policies, to identify low-performing teacher preparation programs, and to report statewide passing rates on licensure tests for their teacher candidates. (p. 2.)" As a result of the Title II law many teacher programs are revising their test preparation practices (Miyasaka, 2000). Determining the approach and ideal amount of time to devote to test preparation (Mehrens, 1989; Popham, 1991; Seaton, 1992) and developing their own test-taking preparation materials (AEPA Prep Center, 2002; Weinberg, 1999) are just two ways to help teacher candidates to pass their licensure examinations. Similar to the college entrance examination market, there is a large variety of books, computer programs, and study guides available to help teacher candidates to pass their tests (Duke & Ritchhart, 2001; Seaton, 1992), and like the K-12 market, teacher education programs and their students are likely to devote additional funds to purchase of these materials. What

remains a mystery is whether test preparation makes a difference in student performance on teacher licensure examinations.

The Study

The present paper examines the efficacy of a model for preparing teacher candidates for the Arizona Educator Proficiency Assessments (AEPA). The paper will not examine the validity of teacher tests as a means of determining which teacher candidates are allowed to become classroom teachers, rather it will examine the effectiveness of one Arizona teacher preparation program in preparing its students to prepare and pass the AEPA.

This systematic investigation of the efficacy of the AEPA Prep Center was completed for four reasons. First, because forty-four states' teacher education programs must prepare teacher candidates for some type of teacher licensure examination (e.g., AEPA in Arizona) in order to comply with the federal Title II requirements the results from this study can be used to inform other states' teacher education programs about the efficacy of test preparation endeavors. Second, few studies have undertaken a serious and systematic research study on the test preparation practices in place in teacher education programs that are now subject to new accountability measures. Third, the investigation of the AEPA Prep Center's test preparation practices hopes to show positive outcomes (i.e., passing rates and increased confidence in test-taking skills) for students faced with teacher licensure examinations. Finally, the study will yield the most effective working model for teacher candidates to draw on to advance their skills, knowledge, and test performance.

The Arizona Educator Proficiency Assessments (AEPA)

Since May 31, 2001 Arizona requires their teacher candidates to pass a teacher licensure examination in order to gain certification (Arizona Dept. of Education, 2001). The state of Arizona has contracted with the National Evaluation Systems (NES) to develop custom-made teacher licensure examinations. The examinations, known as the Arizona Educator Proficiency Assessments (AEPA), were produced with the assistance of various educational representatives such as deans from colleges of education, teachers, administrators, and representatives of educational organizations. Their goal was to move state certification rules from "seat-time" based requirements (showing a person has attained certificate status by completion of courses) to a more performance-based system that could also meet the federal Title II reporting requirements. Although questions about the validity of the AEPA for credentialing teacher candidates still exist, the implementation of the AEPA has moved forward and Arizona teacher candidates must now pass a subject knowledge test and a professional knowledge test (i.e., pedagogy) in order to become certified to teach in Arizona.

> "The Arizona Educator Proficiency Assessments (AEPA) program incorporates two examination types, subject knowledge and professional knowledge, to assess an applicant's content knowledge within each area. Passing the appropriate examinations provides an initial or "provisional" certificate allowing the applicant to begin their teaching career and prepare for upgrade to a later "standard" certificate. Although a performance examination was originally built into the upgrade requirements for a

standard certificate, the state Board has yet to finalize the format of this assessment (Arizona Department of Education, 2000).

The performance examination requirement of the AEPA has been temporarily eliminated from the AEPA because of concerns of grading costs and reliability of the performance outcomes.

Teacher candidates that score greater than 70% on both the subject knowledge and the professional knowledge tests receive a letter from the NES that states they have passed the test, however no numerical score is included. Students that fail the test receive a failure notification from NES along with a numerical score. There is no limit to the number of times students can take the test, but they must pay $95.00 to $105.00 for each test administration until they pass (AEPA, 2001). The current composition of the AEPA subject knowledge and professional knowledge is approximately 100 multiple-choice questions and three written performance assignments (i.e., essays). The compensatory tests' multiple-choice responses are multiplied by 0.9 and the essay responses are multiplied by 0.1, and the two resulting scores are added (AEPA, 2001).

The AEPA Prep Center

The AEPA Preparation Center (AEPA Prep Center) was established by Northern Arizona University (NAU) in response to the 1998 Higher Education Act's Title II requirements that require teacher preparation programs receiving federal funding to report their teacher candidates' passing rates on teacher licensure examinations. Northern Arizona University's AEPA Prep Center is a walk-in center with a parallel world wide web location that seeks to prepare teacher candidates for successful completion of the AEPA. As shown in Figure 2, the AEPA Prep Center's preparation practices include

curriculum and test content review, assessment approaches and item format discussion, test-taking strategies, and timing of test preparations, and information about the AEPA. See Appendix A for a complete description of the AEPA Prep Center Services.

Figure 2: AEPA Prep Center Services

AEPA PREPARATION CENTER offers specialized services, including:

- AEPA Registration Booklet.
- Timed Professional Knowledge practice exams.
- AEPA Preparation seminars
- Test Objectives for the Professional Knowledge
- Key terms for the Professional Knowledge exam.
- AEPA Study Guides available for candidates to check out.
- Essay and multiple-choice test taking tips.
- Answering frequently asked questions.

Source: AEPA Prep Center Brochure, 2002.

Data Sources and Methodology

During this study, which began in August, 2001, project staff identified students that had taken used the AEPA Prep Center's services and had passed the AEPA. We carried out phone and web interviews with traditional four-year students, non-traditional four-year students (i.e., distant learners), and community college transfer students to determine which AEPA Prep Center materials they found to be most helpful while they took their tests and to identify potential differences in test performance between the three groups of students. All students were also asked to share their thoughts on the AEPA and whether it might help them become better teachers. In order to be included in the study students were required to meet the following criteria:

- students had used one or more of the AEPA Prep Center services
- students must be enrolled in the teacher education program
- students must be in their third or fourth (i.e., junior or senior) year of school
- they were traditional four-year students (on-campus students), non-traditional four-year students (i.e., learners in distant locations); or community college transfer students
- students were willing to participate in the AEPA Prep Center study

Student responses were coded electronically using an electronic spreadsheet to examine the different students' successful test preparation strategies. Additionally, selected students were interviewed to gain a better understanding of their test preparation strategies and their testing experience.

One hundred and seventy four students were contacted to be included in the study. The study sample included 79 teacher education candidates that reported using AEPA Prep Center test preparation services. These students responded to electronic surveys in which they reported that passing at least one of the AEPA tests and they agreed to participate in the study. As shown in Table 1, the majority of the students were traditional four-year students.

Table 1
Number of Students by Type

Student Type	Number of Students
Traditional Four-Year Students	42
Non-Traditional Four-Year Students	16
Community College Transfer Students	21

Results

In the spring of 2002, survey data were electronically coded which enabled data analysis that revealed students that engaged in the test preparation activities reported greater levels of preparedness for the AEPA. Students reported that drill and practice with feedback was the most important test preparation activity. No differences in levels of test preparedness or test passing rates were found between traditional four-year students, non-traditional four-year students, or community college transfer students.

A large majority (95%) of the students reported that the AEPA Prep Center's test preparation activities prepared them for the AEPA administration. All students (100%) reported that the timed practice tests were the most helpful activity for preparing for the examination. One student stated, "I experienced the types of questions that will be on the exam and found out how much preparation I needed," while another reported that the practice tests were "very helpful to me; they gave me a 'sneak preview'." Eighty percent of the students found that knowing the test objectives and format of the test helped them on the actual test day. One student said, "the test objectives were helpful and so was having familiarity with the directions and the test. It is interesting to note that traditional four-year students found the test objectives to be less helpful for their test preparedness than did their non-traditional and community college transfer student counterparts.

Discussion

Responding to the recent teacher licensure examination requirements has been a challenge for teacher preparation programs. Devoting limited funds for test preparation has met with great resistance in many teacher preparation programs because of questions about using teacher tests to determine who gets to teach and concerns about "teaching to the test." However, in this age of accountability it is difficult for teacher education

programs to ignore the existence of the teacher tests and the potential risk of high student failure rates. The findings above tell us that teacher candidates feel better about taking a teacher test if they have a chance to take a similar practice test, learn about test objectives, and review general test preparation activities.

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APPENDIX A. - AEPA PREPARATION CENTER SPECIALIZED SERVICES:

AEPA Registration Booklet

The AEPA Registration booklet provides information about costs and registration for the AEPA.

Timed Professional Knowledge practice examinations.

The AEPA Prep Center has identified test items and developed six professional knowledge tests (3 elementary and 3 secondary) that include 40-45 multiple-choice test items and one essay prompt. The practice examinations include the instructions from the actual AEPA and are administered as part of the preparation seminar, but they may also be taken students on a walk-in basis. Beginning in the Spring of 2002, teacher education candidates will have the opportunity of taking practices tests as part of an interactive web course.

Preparation seminars (held 7 days prior to actual AEPA administration).

The four-hour preparation seminars include a comprehensive presentation on registering for the AEPA, review of AEPA test objectives, test format and scoring procedure, general multiple-choice and essay test item completion strategies, test anxiety reduction strategies, and an opportunity to take one timed professional knowledge practice examination. Upon completion of the practice test students receive their answers and the link to the appropriate test objective which can help them to identify areas of weakness.

Test Objectives for the Professional Knowledge exam and the content portion of the elementary exam.

NES developed a set of objectives for each test to serve as the basis for test content. The test objectives reflect certification standards, curriculum materials, and content of educator programs in Arizona. The objectives that are distributed during the AEPA Prep Sessions are adapted from the broad, conceptual statements issued by NES (AEPA, 2001).

Key terms for the Professional Knowledge exam.

A glossary of key terms based on the test objectives.

AEPA Study Guides available for candidates to check out.

The AEPA Study Guide volumes contain sets of objectives that define the content for each test. Each guide also contains sample test materials and answer key for each sample test. In addition, each guide contains suggestions for preparing for the test and describes what to expect at the administration.

Essay and multiple-choice test taking tips.

Review of a two-page handout details strategies for improving performance on essay and multiple-choice item performance.